

option. An additional analysis was done supposing that infliximab's effectiveness was superior to ustekinumab's. The ICER per patient with PASI 75 between these products was €220,352 in Colombia and €50,989 in Peru. These values were higher than Colombian and Peruvian health systems' willingness to pay per PASI 75 (€40,334 and €29,242, respectively), calculated based on average effectiveness and costs of biologics. **CONCLUSIONS:** In the studied LA countries, Ustekinumab resulted the most cost-effective biologic, even being cost-saving in Colombia. These results corroborate those observed in European countries.

PSY42

#### **COST-EFFECTIVENESS ANALYSIS OF BIOLOGICS IN THE TREATMENT OF MODERATE TO SEVERE PSORIASIS IN THE PUBLIC HEALTH CARE SYSTEM OF BRAZIL**

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**OBJECTIVES:** To compare treatment costs and cost-effectiveness results for biologics approved for the treatment of moderate to severe psoriasis from the perspective of a public payer in Brazil. **METHODS:** Annual treatment costs were calculated based on the number of vials used, as defined in the label for each biologic, and from the price per vial. The prices of etanercept, adalimumab and infliximab were obtained from purchase disclosures by the Brazilian Ministry of Health. As ustekinumab, the latest biologic approved for psoriasis, has not yet been purchased by that Ministry, its list price after deducting the mandatory discount for government sales (22.85%) was considered. The effectiveness of each treatment was defined by a recent metanalysis as the PASI75 response at the primary endpoint for each drug. The average patient weight was assumed at 70 kg. **RESULTS:** Ustekinumab has the lowest treatment cost across the biologics in both induction and maintenance years with the least number of vials used. With a total of 4 applications during a maintenance year, ustekinumab has the lowest treatment cost, followed by infliximab (55% more expensive), adalimumab (62% more expensive) and etanercept (75% more expensive). Combining the cost and effectiveness results, ustekinumab has the lowest cost per response, followed by infliximab (44% less cost-effective), adalimumab (104% less cost-effective) and etanercept (152% less cost-effective). **CONCLUSIONS:** With the lowest treatment cost, ustekinumab is an important treatment option in moderate to severe psoriasis. When comparing the cost-per-response across biologics, ustekinumab is further differentiated from the remaining biologics. Ustekinumab represents a rare situation in Brazil combining the lowest treatment cost and a high effectiveness result.

PSY43

#### **ECONOMIC ANALYSIS OF RITUXIMAB IN COMBINATION WITH CYCLOPHOSPHAMIDE, VINCRISTINE AND PREDNISOLONE IN THE TREATMENT OF PATIENTS WITH ADVANCED FOLLICULAR LYMPHOMA IN PORTUGAL**

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**OBJECTIVES:** Evaluate costs and benefits of rituximab in combination with cyclophosphamide/vincristine/prednisolone chemotherapy regimen (R-CVP) versus CVP alone in previously untreated patients with indolent non-Hodgkin lymphoma (NHL). **METHODS:** Cost-effectiveness (Life-years Gained—LYG) and cost-utility analysis (Quality Adjusted Life-years—QALYs) were performed for a time horizon of 10 years according to a Markov economic model with three health states ("progression free survival", "progression" and "death") and monthly cycles. Data from a phase III clinical trial (Marcus R. *et al* 2007) was used and expanded in the model to include unpublished 53-month median follow-up data. Survival after first-line therapy was estimated from the Scotland and Newcastle Lymphoma Group registry data and utilities were derived from a UK study. Resource consumption was estimated by a Portuguese expert panel. Costs were calculated from the Portuguese Health System perspective through official data with prices updated to 2010. Only direct medical costs were considered. Costs and consequences were discounted at 5% *per annum*. Deterministic and probabilistic sensitivity analyses were performed around assumptions on the time horizon, costs, utilities and excess mortality rate due to progression applied in the base-case analysis. **RESULTS:** The 10-year base-case analysis showed a lower total cost per patient with CVP alone (€88,373) versus R-CVP (€89,899). Life expectancy and quality-adjusted life expectancy per patient were higher with R-CVP (6.361 and 4.166, respectively) versus CVP alone (5.557 and 3.438, respectively), representing increases of 0.804 in LYG and 0.728 in QALYs gained. The incremental cost per QALY gained was €2097 (base-case) and €6006 considering a lifetime horizon (25 years). The sensitivity analyses confirmed the robustness of the model. **CONCLUSIONS:** This study demonstrates that the combination R-CVP in previously untreated NHL patients improves life expectancy and is a cost-effective alternative to CVP in Portugal.

PSY44

#### **COST-EFFECTIVENESS OF A LIDOCAINE PLASTER RELATIVE TO GABAPENTIN AND PREGABALIN IN THE TREATMENT OF POST-HERPETIC NEURALGIA IN SPAIN**

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**OBJECTIVES:** To assess the cost-effectiveness of using a lidocaine 5% medicated plaster in the treatment of post-herpetic neuralgia (PHN) compared with gabapentin

and pregabalin from the perspective of the payer in Spain. **METHODS:** A Markov model was constructed to calculate the cost-effectiveness of gabapentin, pregabalin and lidocaine plaster in terms of the cost per quality-adjusted life-year (QALY) gained when used over a six-month time horizon in patients with PHN. The model structure allowed for differences in costs, utilities and transition probabilities between the initial 30-day run-in period and maintenance therapy. Transition probabilities were based on the comparative and long-term clinical trials identified through a systematic literature review. Missing data, including resource utilization, were obtained from a Delphi panel, and cost data were obtained from the official price/tariffs lists. Utilities were derived from the literature and were supplemented and validated by the Delphi panel. **RESULTS:** The total cost of treatment with the lidocaine plaster was €1414 per patient at a daily consumption of 1.1 plasters, compared with €1100 for gabapentin (average dosage 2100 mg/day during maintenance phase), and €1348 for pregabalin (average dosage 488 mg during maintenance phase). Lidocaine plaster generated 0.428 QALYs, compared with 0.339 for gabapentin, and 0.399 for pregabalin. Lidocaine plaster therefore had an incremental cost-effectiveness ratio of €3525/QALY gained relative to gabapentin at generic price, and €742/QALY relative to pregabalin. Scenario analyses and extensive one-way sensitivity analyses on all parameters including the time horizon confirmed the robustness of the results. **CONCLUSIONS:** The lidocaine 5% plaster is a highly cost-effective treatment for PHN in Spain.

PSY45

#### **PREGABALIN IS A COST-EFFECTIVE MEDICINE FOR REFRACTORY NEUROPATHIC PAIN IN SWEDEN**

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**OBJECTIVES:** Patients refractory to older therapies for neuropathic pain (NeP) have few remaining therapeutic options. To demonstrate pregabalin's value to decision-makers, this study evaluates the cost-utility of pregabalin in the treatment of patients with refractory neuropathic pain in Sweden, from a health care and societal perspective. **METHODS:** A discrete event simulation (DES) model was constructed to compare pregabalin with usual care. Pain profiles were generated for the pregabalin and usual care cohorts using clinical data from a synthesis of five non-randomised pregabalin studies in treatment-refractory patients. Utility data were generated from a UK survey of patients with NeP, which were used in a recent successful Health Technology Assessment (HTA) of pregabalin in the UK [1]. Cost data were generated from the Swedish TLV's product price database, a national NeP register, and a regional register study. Indirect costs were estimated from published sources. One-way, and probabilistic sensitivity analyses (PSA), evaluated uncertainty in the model's output. **RESULTS:** The incremental cost-effectiveness ratio (ICER) for pregabalin compared to usual care was 51,616 SEK/€5,364 (123,993 SEK/€12,886 excluding indirect costs). One-way sensitivity analyses confirmed the clinical input data as the main driver of the model; even considerable changes to all other input parameters had only a modest effect on the ICER. The PSA generated an ICER of 41,634 SEK/€4,327 (with indirect costs included), suggesting that the model is relatively insensitive to the combined variation in all input parameters; this is evident in the ICER scatter, in which the cost-effectiveness pairs are tightly grouped. **CONCLUSIONS:** Our study found pregabalin to be highly cost-effective compared to usual care in Swedish treatment-refractory patients. Moreover, the PSA showed pregabalin's favourable cost-effectiveness to be robust in all modelled scenarios, with an ICER well below a conservative threshold of 347,495 SEK / €36,113/€30,000. [1] Scottish Medicines Consortium (SMC). Pregabalin re-submission, advice issued May 2009.

PSY46

#### **INDIRECT COSTS OF MODERATE AND SEVERE FORMS OF PSORIASIS IN CZECH REPUBLIC: CALCULATION BASED ON SELF REPORTED QUESTIONNAIRE**

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**OBJECTIVES:** Patients with moderate to severe forms of psoriasis reveal lower quality of life. This QoL deterioration comes together with their productivity loss and disability. Therefore, we calculated indirect costs, from societal perspective, of psoriasis in Czech Republic. **METHODS:** This calculation was based on 6 months-retrospective self-reported questionnaire. We included 179 patients with psoriasis, aged 18–62 years either at working status, partly-disabled or fully-disabled. For calculation of indirect costs we included costs associated with absenteeism (number of missed workdays) and costs associated with disability pension. We used friction costs approach (FCA) with defined friction period of 6 months (130 workdays). The height of average monthly income in year 2009, €851.3 and height of average monthly partly-disability pension and fully-disability pension €229.44 and €365.61, respectively were used for calculation. Indirect costs were expressed as mean value per one patient with moderate to severe form of psoriasis per one year—2009. Clinical data (PASI score, BSA index and QoL) were collected by dermatologists. **RESULTS:** Average patients' age was 45.34 years (23–62 years), average time from diagnosis was 23.9 years. Mean BSA index and PASI score were 26.78% and 13.32, respectively. Occurrence of psoriatic arthritis was 34.1%. Percentage of fully-disabled and partly-disabled patients was 9.5 and 6.1%, respectively. 18.4% of patients reported incapacity to work with average duration of 28.8 workdays in previous 6 months. Mean costs associated with absenteeism, partly-disability pension and fully-disability pension were €214, €168 and €414, respectively. **CONCLUSIONS:** By using friction cost approach total mean indirect costs of patients with moderate to severe forms of psoriasis were €796 per patient per year. The height of indirect costs was correlated with PASI score, BSA index and QoL.